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Economic and Revenue Forecast

Fiscal Year 2012 Second Quarter

November 2011



Acknowledgements

The Washington Department of Natural Resources' (DNR) *Economic and Revenue Forecast* is a collaborative effort. It is the product of information provided by private individuals and organizations, as well as DNR staff. Without their contributions, the quality of the Forecast would be greatly diminished.

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Thanks also go to DNR staff who contributed to the Forecast. Kristin Swenddal, Julie Sackett, Dave Gordon, Chris Hanlon-Meyer, Rick Roeder, Pat Ryan, Julie Sandberg, Pam Barkis, and Karen Jennings provided data, including information on revenue flows, in their areas of responsibility and made contributions to the accuracy of the Forecast. Lisa Largent reviewed a draft of the Forecast and Bob Redling edited the final version. Luis Prado designed the front cover.

In the final analysis, the views expressed are my own and may not necessarily represent the views of the contributors or reviewers.

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Hard copies of this Forecast are available upon request from:

DNR Office of Budget and Economics (360) 902-1730

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http://www.dnr.wa.gov/BusinessPermits/Topics/EconomicReports/Pages/econ_timb_rev_forcsts.aspx

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Economic and Revenue Forecast

Fiscal Year 2012 - Second Quarter

Prepared by Craig Calhoon, Economist DNR Office of Budget and Economics



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Acronyms and abbreviations

bbf Billion board feet CAD Canadian dollar

CPI Consumer Price Index

CY Calendar Year

DNR Washington Department of Natural Resources

ECB European Central Bank

FDA Forest Development Account Fed U.S. Federal Reserve Board FOMC Federal Open Market Committee

FY Fiscal Year

GDP Gross Domestic Product
IMF International Monetary Fund
ISM Institute for Supply Management

mbf Thousand board feet mmbf Million board feet

NAFTA North American Free Trade Agreement

OPEC Organization of Petroleum Exporting Nations

PPI Producer Price Index

Q1 First quarter of year (similarly Q2, Q3, and Q4)

QE2 Quantitative Easing, Round 2

RCW Revised Code of Washington
REIT Real Estate Investment Trust
RISI Resource Information Systems

RISI Resource Information Systems, Inc.
RMB Renminbi, China's currency – the basic unit is the yuan

RMCA Resource Management Cost Account

SA Seasonally Adjusted

SAAR Seasonally Adjusted Annual Rate

TIMO Timberland Investment Management Organization

USD U.S. dollar

WWPA Western Wood Products Association

WTO World Trade Organization

¥ Japanese yen



Preface

This *Economic and Revenue Forecast* projects revenues from Washington State trust lands managed by the Washington State Department of Natural Resources (DNR). These revenues are distributed to management funds and beneficiaries as directed by statute. The Forecast revenues are organized by source, fund, and fiscal year.

DNR revises its Forecast quarterly to provide updated information for trust beneficiaries and department budgeting purposes. See the Forecast calendar at the end of this section for release dates. We strive to produce the most accurate and objective forecast possible, based on current policy direction and available information. Actual revenues depend on DNR's future policy decisions and changes in market conditions beyond our control.

This Forecast covers fiscal years 2012 through 2015. Fiscal years for Washington State government begin on July 1 and end on June 30. For example, Fiscal Year 2012 runs from July 1, 2011 through June 30, 2012.

The baseline date (the point that designates the transition from "actuals" to forecast) for this Forecast is October 1, 2011. The forecast beyond that date is based on the most up-to-date market and economic information available at the time of publication, including DNR's timber sales results through October 2011.

Unless otherwise indicated, values are expressed in nominal terms without adjustment for inflation. Therefore, interpreting trends in the Forecast requires attention to inflationary changes in the value of money over time separate from changes attributable to other economic influences.

Each DNR Forecast builds on the previous one, emphasizing ongoing changes. Before preparing each Forecast, world and national macroeconomic conditions and the demand and supply for forest products are re-evaluated. The impact on projected revenues from DNR-managed trust lands is then evaluated, given the current economic conditions and outlook.

DNR Forecasts provide information used in the *Washington Economic and Revenue Forecast* issued by the Washington State Economic and Revenue Forecast Council. The release dates for DNR's Forecasts are determined by the state's Forecast schedule as prescribed by RCW 82.33.020. The table below shows the anticipated schedule for DNR's future *Economic and Revenue Forecasts*.

Economic Forecast Calendar

Forecast Title	Baseline Date	Draft Revenue Data Release Date	Final Data and Publication Date (approximate)
February 2012	End Q2, FY 2012	Feb. 3, 2012	Feb. 29, 2012
June 2012	End Q3, FY 2012	June 1, 2012	June 30, 2012
September 2012	End Q4, FY 2012	Sept. 7, 2012	Sept. 30, 2012
November 2012	End Q1, FY 2013	Nov. 2, 2012	Nov. 30, 2012



Introduction and Forecast Highlights

U.S. Economy and Housing Market. There have been a few more positive economic reports recently but they are overwhelmed by the greater number of negative reports. "Uncertain", "weak", "fragile", and "vulnerable" are the adjectives economists currently use most often when asked to assess the overall condition of the U.S. economy. And they are even more pessimistic than earlier in the year. Congress is distracted and paralyzed, the European financial crisis grinds on, the stock market is wildly volatile, consumer confidence is low, businesses are cautious and hesitant to hire, and unemployment remains stuck around nine percent. Adding to the pessimism are data showing that U.S. housing starts continue to bounce along the bottom and foreclosed residential properties can be expected to flood the market for years to come.

Log and Lumber Prices. Pacific Northwest log prices have held relatively steady in the first ten months of calendar year 2011. During that time, the price of a "typical" DNR log delivered to the mill has varied in a narrow range between \$469/mbf and \$503/mbf, with the price at \$476/mbf in October and an average 2011 year-to-date price of \$484/mbf. This is significantly better than the average annual composite DNR log prices for the last three years—\$409, \$316, and \$413/mbf respectively for 2008, 2009, and 2010. Regional log prices have held up in 2011 because of the increased level of log exports to China from private forestlands. West Coast lumber prices show a similar pattern to log prices, with the Random Lengths' Coast Dry Random and Stud composite lumber price averaging \$275/mbf through the first nine months of 2011, compared with \$209, \$190, and \$264/mbf for 2008, 2009, and 2010 respectively. The composite lumber price was at \$265/mbf in September, the most current data point.

Timber Sales Prices. Through the first four months of FY 2012 DNR timber sales prices have averaged \$339/mbf, compared with the \$282/mbf projected for the entire fiscal year in the September Forecast. We are keeping the FY 2012 timber sales price unchanged at \$282/mbf in this Forecast, based on two factors: the developing slowdown in log exports to China and the actual average sales price of \$283/mbf in October's sales. Based on the probability that the U.S. housing market will not see a significant recovery over the next several years, we are holding the FY 2013 timber sales price at \$274/mbf and are lowering the projected timber sales prices for FY 2014 and 2015 to \$300/mbf in both years, down from \$308 and \$320/mbf currently. Pacific Northwest log exports to China are expected to revert to their recent high levels after the current

slowdown but if they don't DNR's timber sale prices will likely fall below the levels projected in this Forecast.

Timber Sales Volume. In the first four months of FY 2011, DNR has sold 140 mmbf, or 21 percent of the projected annual sales volume of 679 mmbf. There were no bids on another 38 mmbf, or 21 percent, of the total volume offered but the percentage of volume not sold has fallen off from the higher levels experienced in July and in April through June of the prior fiscal year, FY 2010. DNR expects to make the 679 mmbf target for FY 2012 with planned timber sales volume in the pipeline and by bringing back to auction several of its recent no-bid sales. We are keeping the projected timber sales levels unchanged at 679, 679, and 597 mmbf for FYs 2013, 2014, and 2015 respectively.

Timber Removal Volume and Prices. Based on no changes to the projected timber sales levels and based on the results of our timber purchasers' survey (on the timing of their harvesting of timber currently under sales contract), there are only minor changes to forecast timber removal volumes for FYs 2012-2015. Forecast removals for FY 2014 are down by 31 mmbf (4 percent), with little change (1 percent or less) for FYs 2012, 2013, and FY 2015. There are only slight revisions to forecast timber removal prices through the Forecast period. The largest adjustment is in FY 2015 with a new projected removal price of \$293/mbf, down 3 percent from the \$302/mbf in the September Forecast.

Bottom Line for Timber Revenues. Because there are only minor revisions to forecast timber removal volumes and timber removal prices, projected timber revenues are not changed much from the September Forecast. The projection for the 2011-2013 Biennium is now slightly higher (less than 1 percent) at \$361.5 million versus \$359.5 million. For the 2013-2015 Biennium, the projected revenue from timber removals is revised to \$384.9 million, down less than 5 percent from \$403.3 million in the previous Forecast.

Uplands and Aquatic Lands Lease (Non-Timber) Revenues. In addition to revenue from timber removals on state lands, DNR also receives sizable revenues from leases on uplands and aquatic lands. For the current 2011-2013 Biennium, revenues from leases on uplands and aquatic lands are projected to be \$67.1 million and \$58.3 million respectively. For the 2013-2015 Biennium, the corresponding numbers are \$63.8 million and \$57.6 million. These amounts are unchanged from the September 2011 Forecast.

Risks to the Forecast. The downside potential to the overall forecast is greater than the upside potential because of the downside risks to timber sales volume (and therefore to timber removal volume) due to operational issues and potential environmental and policy issues. In addition, the extremely uncertain and volatile economic conditions in the world and the United States continue to make economic forecasting especially challenging.



Part 1. Macroeconomic Conditions

This section briefly reviews current and predicted conditions of the United States and world economies because these macroeconomic conditions affect the stumpage bid prices for DNR timber sales as well as lease revenues from DNR-managed uplands and aquatic lands.

International supply and demand also affect domestic timber stumpage prices and lumber prices. On the supply side, Canada has a strong influence on the U.S. wood products sectors as it is a major source of lumber which can enter U.S. markets quite readily. On the demand side, China is an important market for commodities including logs and geoducks.

U.S. economy

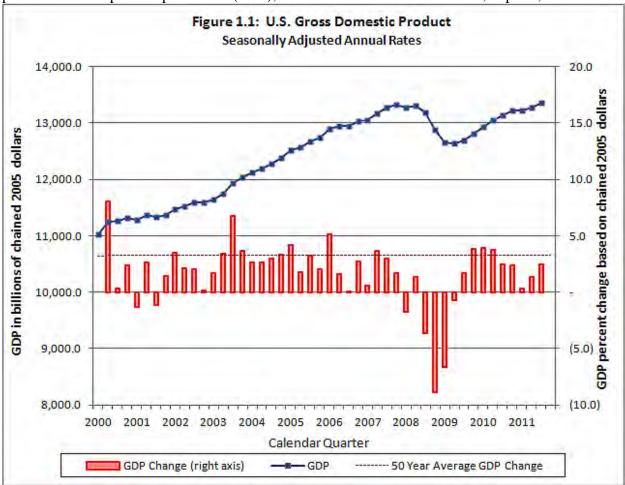
Until we get a series of positive months, it remains a she-loves-me, she-loves-me-not economy with bad news followed by good followed by bad.

Ed Leamer Chief Economist, Ceridian-UCLA Pulse of Commerce Index and Director, UCLA Anderson Forecast November 9, 2011

Gross Domestic Product (GDP). The shock of the Great Recession on the U.S. economy is clearly seen on **Figure 1.1** as U.S. real gross domestic product (GDP)—the output of goods and services produced by labor and property located in the United States—actually fell during 2008 and the first half of 2009. The worst quarters for GDP decline during the recession were 4Q 2008 and 1Q 2009, at -8.9 percent and -6.8 percent respectively (see **Figure 1.1**).

In 4Q 2009 through 2Q 2010, growth in GDP resumed growing at a rate similar to that before the recession began, with annualized GDP growth rates in the 3.8 to 3.9 percent range (see **Figure 1.1**). But for five quarters in a row now growth has been at a slower rate. Finally in 3Q of 2011 real GDP is back to its pre-recession peak in 4Q 2007–almost four years ago.

GDP increased at an annual rate of 2.5 percent in the third quarter of 2011, an improvement over the first two quarters of the year, which were 0.4 and 1.3 percent respectively (see **Figure 1.1**). The increase in real GDP in the third quarter primarily reflected positive contributions from personal consumption expenditures (PCE), nonresidential fixed investment, exports, and federal



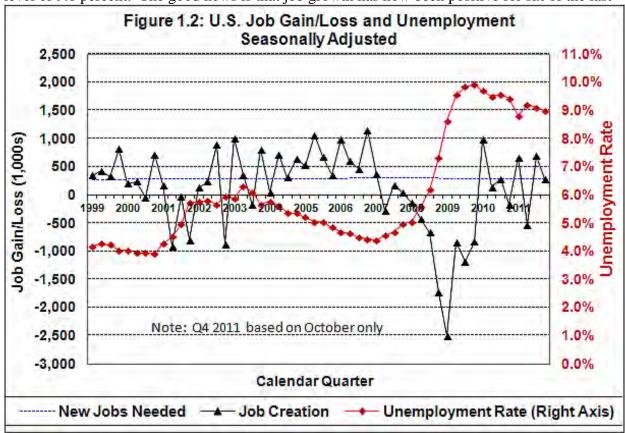
government spending that were partly offset by negative contributions from private inventory investment and state and local government spending. Imports, which are a subtraction in the calculation of GDP, increased.

Several categories boosted GDP in the quarter but we must highlight the improvement in spending on services. Spending on this category rose by 3.0% and is the largest gain since the middle of 2006. This is not unimportant as spending on services accounts for 65% of all personal consumption.

Dan Greenhaus, BTIG LLC October 27, 2011

The IMF has lowered its projections for U.S. GDP growth significantly, from 2.5 percent down to 1.5 percent for 2011 and from 2.7 percent down to 1.8 percent for 2012.

Employment. As shown by the red line in **Figure 1.2**, the national unemployment rate has been falling from its high point of 10.1 percent in October 2009. But the improvement has been excruciatingly slow. Two years later in October 2011 the unemployment rate is still at a high level of 9.0 percent. The good news is that job growth has now been positive for six of the last



eight quarters (see **Figure 1.2**). The bad news is that not enough jobs are being created to bring down the unemployment rate more rapidly.

The unemployment rate would be higher than it is except for a lack of growth in the U.S. labor force. The labor force usually grows about 0.7 percent each year because of population growth (natural increase plus net inmigration). But the total number of persons in the labor force has been stagnant in the last three and one-half years. The recession has slowed U.S. population growth because it has slowed down inmigration and there is evidence that it has also lowered the U.S. birth rate. The recession has also expanded the ranks of the long-term unemployed to an extent not seen since the Great Depression. In October, there were 5.88 million people who have been unemployed for over a half year and the average duration of unemployment was 39.4 weeks. Many Americans have dropped out of the labor force and stopped looking for work.

The high 9.0 percent unemployment rate is bad enough, but it doesn't tell the whole story. U-6, an alternate measure of labor underutilization that includes part time workers and marginally attached workers, stood at 16.2 percent in October. The U-6 unemployment rate remains very high—it averaged 8.3 percent in 2007 when the official unemployment rate averaged 4.6 percent.

The unemployment rate in the construction sector, which usually leads the economy out of recession, remains above 13 percent. And state and local governments, which are normally sources of job stability, are cutting jobs due to the severe financial hardship the recession has imposed on their budgets.

Consumption.

Consumers are not about to embark on a spending spree. In addition to the poor job picture, consumers are deleveraging trying to slim down. They spend only when there is value and are very price conscious.

Sung Won Sohn Smith School of Business and Economics October 27, 2011

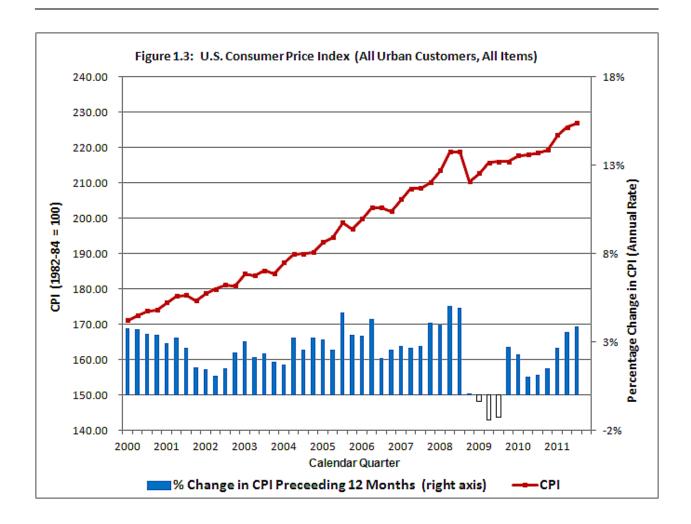
Real personal consumption expenditures increased 2.4 percent in 3Q 2011, compared with an increase of 0.7 percent the previous quarter. Spending on durable goods increased 4.1 percent, in contrast to a decrease of 5.3 percent in 2Q 2011. Consumer purchases of nondurable goods increased by only 0.2 percent on a quarter-over-quarter basis but spending on services increased 3.0 percent.

American consumers have had their confidence deeply shaken and continued uncertainty about the U.S. economic recovery has restrained their spending. Many have cut back by necessity due to job and income losses in the family. The slow growth in employment will limit consumption growth. But sooner or later, things such as clothes and cars wear out and need to be replaced.

Interest Rates. U.S. interest rates remain at or near record lows. The Fed funds rate has remained in the 0.0-0.25 percent range since December 2008. Ten-year U.S. Treasury bonds closed at 2.00 percent on November 1, down from 3.45 on April 1. Average rates on closed conventional 30-year fixed rate mortgages were at a new low of 4.51 percent in September, falling for six consecutive months and staying below 5.00 percent for the fifteenth consecutive month. Four-year new car loan rates continue to drop and are now below 4 percent, compared with around 5.5 percent just a year ago and almost 7 percent three years ago.

Inflation. Figure 1.3 shows the U.S. inflation rate as percent change in the consumer price index (CPI). As shown by the red line, prices in the United States fell precipitously in 4Q 2008 and did not reach their former mid-2008 level until 4Q 2010. In effect, inflation was zero over that two year period. The CPI has gradually increased throughout 2011. In October 2011, the CPI had increased 3.5 percent on an annual basis since October 2010. Items which contributed significantly more than average to price increases were gasoline and fuel oil (23.4 percent), used cars and trucks (5.2 percent), and food (4.7 percent). Items with price increases substantially below average were shelter (1.8 percent) and utilities (1.7 percent).

The blue bars on **Figure 1.3** show the annual percentage changes of the CPI on a year-over-year basis. The first three quarters of 2009 all had negative year-over-year inflation (white bars below the zero line in **Figure 1.3**) because these periods all included the precipitous drop in 4Q 2008.

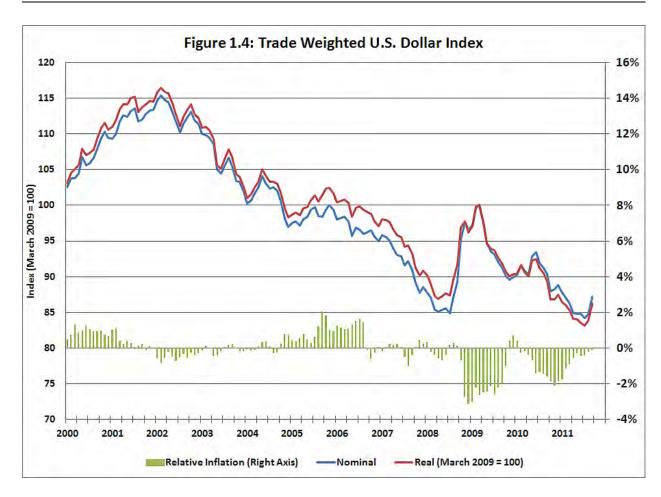


The U.S. Dollar and Foreign Trade. Figure 1.4 shows the trade-weighted U.S. dollar index for the last decade. The broad index is a weighted average of the foreign exchange values of the U.S. dollar against the currencies of a large group of major U.S. trading partners. In July 2011, the index in real terms fell to its lowest point in the history of the data series which was started in January 1973, or the lowest point in over 38 years. In real terms it is off 29 percent from its high in 2001.

When the dollar declines, it makes U.S. produced goods cheaper and more competitive when compared to foreign produced goods. This helps increase U.S. exports, boosting economic growth. However, it also leads to higher prices for imports which is part of the reason oil and gasoline prices have been increasing in dollar terms.

The United States is the world's largest trading nation. Since it is the world's leading importer, there are many U.S. dollars in circulation all around the planet. The dollar is also used as the standard unit of currency in international markets for commodities such as gold and petroleum.

In 2010, the total U.S. trade deficit was \$500 billion, which is the difference between \$1.84 trillion in exports and \$2.34 trillion in imports. The United States actually had a \$146 billion surplus on trade in services but this was outweighed by the much larger \$646 billion



deficit on trade in goods. In 2010, the U.S. trade deficit was 27 percent when expressed as a percentage of exports. The trade item which had far and away the largest contribution to the trade deficit was petroleum products. The country which had far and away the largest contribution to the trade deficit was China.

In the second quarter of 2011, U.S. exports climbed to a record high level of \$2.13 trillion (SAAR before adjusting for inflation). But imports increased even more, to \$2.72 trillion, and the trade deficit at \$590 billion held steady at 28 percent of exports. In June 2011, the U.S. trade deficit with China accounted for 50 percent of the entire U.S. trade deficit.

World economy

The U.S. economy does not exist in isolation and the world is becoming more economically interconnected. World events and the performance of other countries' economies have impacts, for better and worse, on the U.S. economy.

Europe. The economic crisis in Europe continues to evolve without any ready resolution and now the future of the euro itself as a common currency may be at risk. Over the last two years, Greece's sovereign debt problem has been a near-daily item in the U.S financial news pages. More recently, concerns over Spain and Italy have come to the forefront. Even though their financial situations are not as bad as Greece's, their economies are so much larger that a government default in Spain or Italy will have much larger negative ripple effects throughout Europe and beyond. The U.S. and China economies are not immune and their economies and financial systems would certainly feel shocks from an economic collapse in Spain or Italy. Germany, France, the European Central Bank (ECB), and the IMF hold grand meetings and summits, trying to put plans in place to resolve the financial crises in the southern European countries (plus Ireland) and to keep the euro together, however, the people in those countries are not taking well to the forced austerity measures. The elected prime ministers in Greece and Italy have been forced out by the European financial powers and they have been replaced by economists.

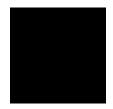
The European crisis seems to be coming down to the question of how the costs to correct the financial situation will be distributed. It will probably be some combination of rescue fund contributions from the IMF and the more well-off European nations including Germany, France, and Finland; monetary policy measures by the ECB; partial write-offs of bad loans to the peripheral European countries by German and French banks; and a lower standard of living and quality of life in the affected countries.

China. China's economy has slowed a bit with GDP growth of 9.4 percent for the first three quarters of 2011 compared with GDP growth of 10.3 percent in 2010 but this is still quite impressive. For 2010, the main contributor to China's growth was fixed asset investment in the form of government stimulus spending (e.g., on roads, railroads, and ports), which accounted for 5.6 percentage points of the growth in GDP, down from the 8.7 percentage point contribution in 2009. It was probably this stimulus that kept China's economy strong and prevented the world economy from falling into a deeper recession than it did. We shouldn't expect China to pull the world out next time as their fixed asset investment will likely decline further in 2011. The latest IMF projections have China's GDP growth at 9.0 percent for 2012.

Internal issues such as higher commodity prices, higher inflation rates, and the prospect of a housing bubble may slow China's economic growth. Externally, China's economy would take a hit from worsening economic conditions in Europe and the U.S. since it depends so heavily on exports to the West. A collapse of China's economy, which some are predicting, seems unlikely. A soft landing is more probable.

The U.S. economy did not worsen in the last month, but the outlook remains extremely uncertain. Europe is tottering on the brink of recession and it remains to be seen if the firewall being contemplated around their banks will be able to head off a global credit crunch. China and India are slowing, on purpose, as their governments move to cool overheating economies. Here at home, political dysfunction at the federal level has dashed any hope that fiscal policy will be able to lend monetary policy a hand in stabilizing the economy. Fear and uncertainty have paralyzed consumers and businesses who continue to sit on their cash. Our forecast last month of a muddlethrough economy, with flat growth, high unemployment and weak confidence, appears to be coming true. Data releases in the last month were mildly encouraging, but only because expectations were so low.

Arun Raha Chief Economist and Executive Director Washington Economic Revenue Forecast Council October 26, 2011



Part 2. Log and Lumber Industry Factors

This chapter focuses on specific factors that affect timber stumpage prices and overall timber sales revenues received by the Washington State Department of Natural Resources (DNR). Timber stumpage prices reflect demand for lumber and other wood products, timber supply, and regional and local lumber mill capacity. The demand for lumber and wood products is directly related to the demand for U.S. housing and other end-use markets.

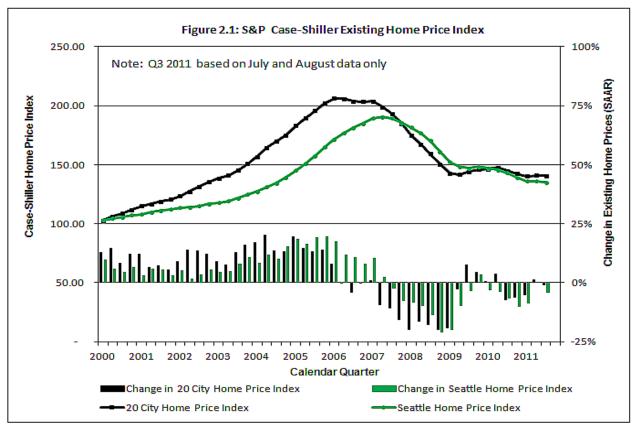
U.S. housing market

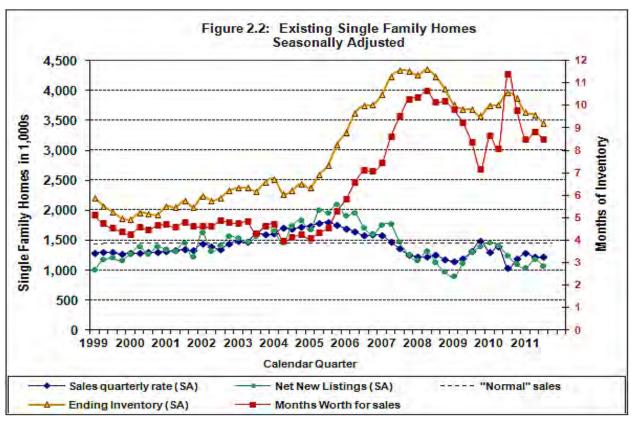
Housing Prices. Prices of existing homes in the United States have generally been moving sideways the last two and one-half years after having dropped back to mid-2003 levels in the beginning of 2009 (**refer to Figure 2.1**). The Case-Shiller existing home price index, a composite for 20 large U.S. cities, hit a new post-2003 low in 1Q 2011, when the average existing house was worth only 68 percent of what it was worth at the peak of the real estate bubble in 1Q 2006. As shown in **Figure 2.1**, the U.S. home price index (black line on chart) has essentially been unchanged in the first three quarters of 2011. On a monthly basis, prices were up in ten of 20 cities for August 2011 versus July 2011 and down in the other ten. On an annual basis, home prices were down in 18 of 20 cities when compared with August 2010.

Most economists do not expect housing prices to begin increasing again at least until the end of 2012; others think it will be much longer.

The Case-Shiller existing home price index for Seattle (green line on **Figure 2.1**) fell to its lowest level in the recession, to a level not seen since the fall of 2004. Seattle housing prices have now fallen or not changed for seven consecutive quarters. The average existing house in Seattle is now worth only 71 percent of what it was worth at the peak of Seattle home prices in May 2007. As shown in **Figure 2.1**, Seattle home prices have lagged the trend in U.S. home price changes.

Existing Home Sales. For the last four quarters, existing home sales have been hovering around the seasonally adjusted quarterly rate of 1.25 million (see **Figure 2.2**), which is an improvement over the worst quarter on record in 3Q 2010 at 1.04 million. But the existing home sales continue to fall short of the "normal" pre-bubble rate of 1.45 million experienced in 1999-2005 (see **Figure 2.2**).



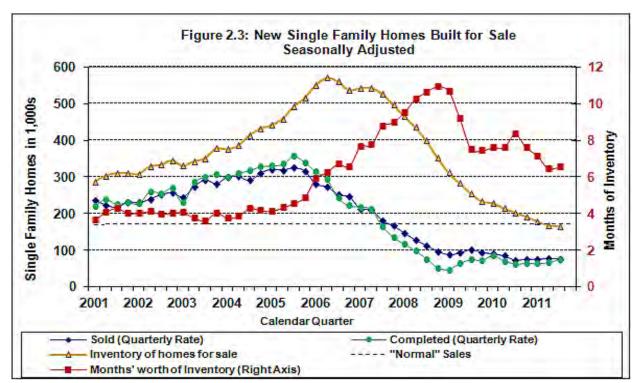


There are many more existing homes in the inventory for sale than in more normal times, as shown on the yellow "ending inventory" curve in **Figure 2.2**. A good trend is developing in that the inventory has declined for four quarters running and it has now broken below the 3.6 million to 4.0 million range which had persisted since the beginning of 2009 (see **Figure 2.2**), which in turn was down from the range of 4.2 million to 4.3 million existing homes which were for sale for six quarters from 2Q 2007 through 3Q 2008. However, the inventory of existing homes for sale is still way above the historically more normal range of 1.8 million to 2.5 million existing homes in the inventory for sale prior to mid-2005.

Because the number of homes in the inventory is so high, so is the "months' worth of inventory" at current sales levels. As shown on **Figure 2.2**, the months' worth of inventory of existing homes for sale (red line) has been highly volatile in the last two years as federal incentive programs for home buyers have come and gone. The months' worth of inventory measure has leveled off in the 8.5 to 8.8 months range in the last three quarters. This compares with four to five months in more normal times (see **Figure 2.2**).

The excess supply of existing homes is weighing on the housing market and contributing to lower home prices and a depressed level of new home construction. Making things worse is the huge "shadow inventory" of foreclosed properties and future foreclosures in the pipeline (distressed properties that haven't yet hit the market), estimated to be in the range of 3.5 million to 4 million units.

New Home Sales. New home sales continue to be at historically low levels, averaging only 300,000 per year (75,000 quarterly rate) over the last five quarters. This rate of new home sales is only 43 percent of the long-term (1963-2010) "normal" annual rate of 680,000 per year (170,000 quarterly rate). See **Figure 2.3**.



In the 12 months ending September 2011, only 265,000 new homes were constructed for sale. This is only 19 percent of the new homes which were built in the peak year of 2005 (see **Figure 2.3**). This plunge and continued trough in new home construction is part of the drag on recovery of the U.S. economy, but it is a necessary step in repairing the housing market.

The dramatic drop in new house construction has brought the inventory of newly built homes down to its lowest level in 10 years. At a high in July 2006, there were 572,000 new single family homes available to purchase in the United States. At the end of September 2011, there were only 165,000 available (see **Figure 2.3**). Again, this is a good thing for recovery of the housing market.

The months' worth of inventory of new homes for sale has worked its way down to 6.2 months in September from a monthly high of 12.2 months in January 2009 (the quarterly high was 10.9 months in 4Q 2008), another good development (see **Figure 2.2**). This compares with the pre-2006 "normal" of about four months' worth of inventory of new homes. New home completions and sales won't (and shouldn't) increase significantly until the excess supply of existing homes, including those in the foreclosure pipeline, is absorbed.

Affordability. U.S. 30-year fixed mortgage loan rates¹ remain at historically low levels (see **Figure 2.4**), hitting a new low of 4.51 percent in September. The 30-year fixed mortgage rate has been below 5 percent for 15 consecutive months through September and has been dropping again each month since March.

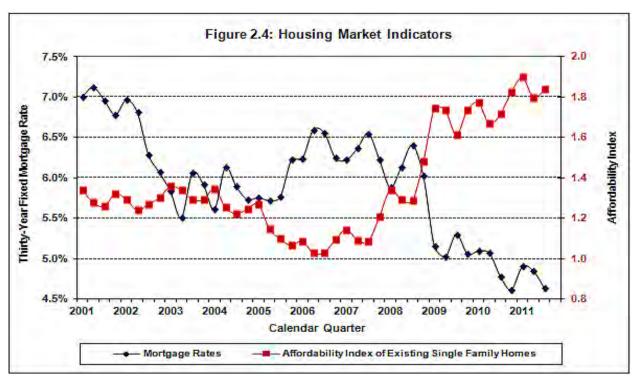
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¹ The data series cited here is the national average effective rate on closed fixed rate 30-year conventional home mortgage loans by all major lenders as reported by the Federal Housing Finance Agency.

The family income required to qualify for a mortgage on the \$165,600 median-priced existing single family home in the United States at September's rate of 4.51 percent is only \$32,256 per year. This compares with an average qualifying income of \$45,984 in 2008 and \$52,992 in 2007 to purchase the median priced existing single family home in those years. Median family income was \$61,554 in September, compared to an average of \$63,366 in 2008 and \$61,173 in 2007.

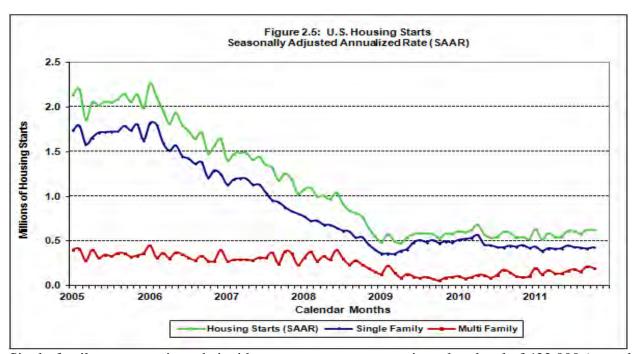
Cyclically low housing prices and mortgage rates have resulted in very affordable housing (see **Figure 2.4**), but this is having little impact on housing demand and home sales. This is because of a combination of factors, including:

- Potential homebuyers are very hesitant to buy when prices may well still be going down.
- Many potential homebuyers are under "house arrest" in their current "underwater" mortgages, where they owe more than the current value of the home.
- Many normally potential homebuyers are unemployed or fear losing their jobs.
- Banks have severely tightened mortgage loan requirements such as requiring high down payments and excellent credit ratings.



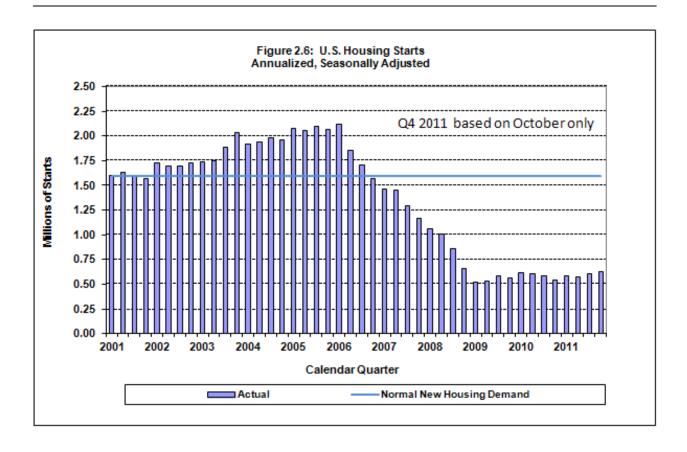
The Affordability Index is the ratio of median family income to the income required to quality for the median-priced existing single-family home. In September 2011, the affordability index was \$61,554/\$32,256 or 1.908.

Housing Starts. New housing starts continue to move sideways at a historic low level as they have been doing since November of 2008 (see **Figure 2.5**). During this three year period, starts have fluctuated in a range between 478,000 (in April 2009, the all time record low month since the Census Bureau began tracking housing starts in 1959) and 687,000 on an annual basis (SAAR), without any obvious trend up or down.



Single-family starts continue their sideways movement, averaging a low level of 422,000 (annual rate) for the first ten months of 2011 (see **Figure 2.5**). Multifamily housing units starts also remain in a historic low range, but appear to be rising slowly out of the 2009-2010 trough. One of the early signs of a recovery in housing will be an increase in multifamily starts, so the trend in multifamily starts bears watching. Housing rental rates have started rising which should encourage the building of more multifamily units.

Figure 2.6 shows the annual rate of new housing starts in the United States since 2001 by quarter. The United States economy overproduced new housing units during the housing bubble (i.e., housing starts exceeded the normal 1.6 million annual rate of new housing demand). The rate then fell off dramatically from 2006 through the end of 2008 and has remained flat since then for the last three years. Economists have divergent opinions on the future of the housing market: some predict the housing recovery will occur in latter 2012 while others predict things won't improve until 2015 or even after 2020.



Lumber, log, and stumpage prices

Lumber Production. In 2004, when lumber prices were at a high peak, mills in the U.S. West (comprised of the Coast, Inland, and California Redwood timber areas) produced 18.8 billion board feet (bbf) of softwood lumber while running at a healthy 93 percent of their capacity of 20.2 bbf. By 2009, lumber production in the West had fallen to 10.2 bbf, using only 53 percent of the 19.1 bbf capacity. In 2010 and 2011, the respective numbers for lumber production in the West were up to 11.3 bbf and 11.1 bbf, capacity was unchanged at 19.1 bbf and 19.0 bbf, and capacity utilization was up to 59 and 58 percent. Total U.S. lumber mill capacity utilization was at 61 percent in 2010 and 62 percent in 2011. It is estimated that the demand/mill capacity ratio in the North American softwood lumber market needs to be above 80 percent before the lumber sector can achieve a sustained recovery.

Log Exports.

Last week I received an email from a member of the Western Timber Enterprises Association of Lithuania. The author, from a company which manufactures log cabins, was complaining that local mills were having an increasingly difficult time buying logs because so many unprocessed logs were being exported to China (sound familiar?).

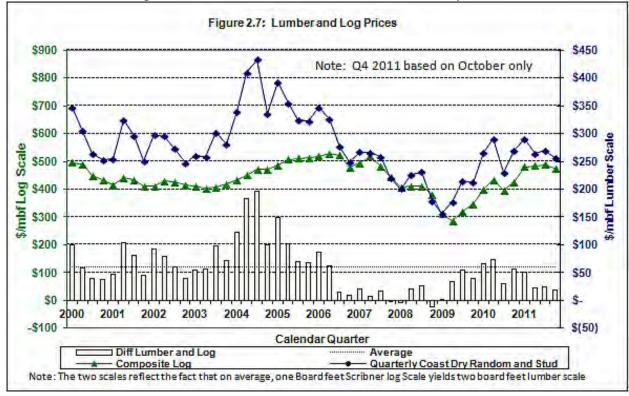
Bob Flynn, RISI October 27, 2011

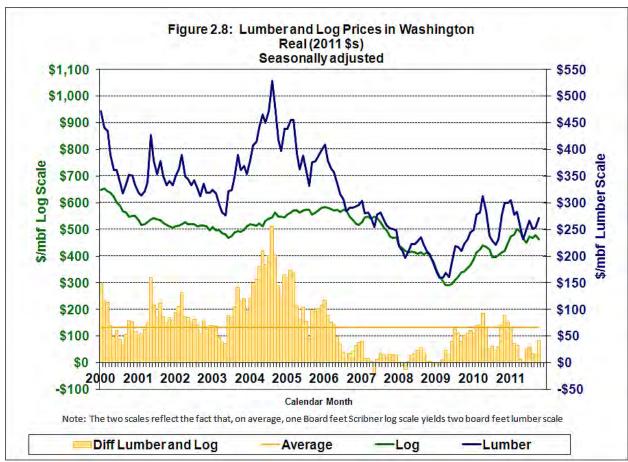
The explosion of log exports to China has been big news in the Pacific Northwest forest products sector in the last couple years. In 2010, the log export volume from Oregon and Washington was 82 percent higher than in 2009 and the highest volume since 2000, with most of the new log export volume going to China. In the first three quarters of 2011, log exports from the U.S. West Coast (Washington, Oregon, northern California, and Alaska) were 11 percent higher than for all of 2010, with China 50 percent higher.

But China's log buying in the Pacific Northwest has slowed in the third quarter of 2011 as it has more logs than its port and sawmill infrastructure can handle. This is likely a temporary slowdown, but the China's future demand for Washington and Oregon logs will depend on the continued strength of China's economy and its high level of construction activity as most of the softwood logs and lumber it imports are used to make wood forms for pouring concrete. Another factor of course is log pricing. China is very price conscious in its acquisition of raw materials and commodities around the world. Log exports to China from the Pacific Northwest picked up as regional log prices in real terms were relatively low in recent years. If Coastal log prices go too high, China will look to other regions of the world for supply or to substitute materials (e.g., lumber from Canada).

Lumber and Log Prices. Figures 2.7 and **2.8** show lumber and log prices in Washington and their relationship since 2000. Log prices are the prices paid for logs delivered to the mill. **Figure 2.7** shows quarterly nominal prices and **Figure 2.8** shows monthly real seasonally

adjusted prices. Both lumber and log prices have significantly improved from their extreme lows in 2009. The lumber price (real SA) bottomed at \$159/mbf in February and March of 2009 and





rose to hit highs of \$313/mbf in April 2010 and \$304/mbf in January 2011. In July 2011, the lumber price stood at \$257/mbf. Composite log prices have shown less volatility, as they usually do, rising from a low of \$291/mbf (real SA) in April and May of 2009 to a high of \$501/mbf in April 2011. The October price for logs is at \$463/mbf.

Earlier in the year, as shown in **Figure 2.8**, dropping lumber prices brought the price curves for logs and lumber together, placing mills in a pinch as their margins disappeared. Some mills announced temporary and/or partial shutdowns because log prices were too high relative to lumber prices. Since May, lumber prices have increased relative to log prices, a good sign for mills but this relationship may not continue if lumber prices fall back as expected.

Log and DNR Stumpage Prices. Figure 2.9 shows prices for logs, predicted DNR stumpage, and actual DNR stumpage on an annual basis since CY 2000. The "composite log price" represents prices for logs delivered to mills weighted by the average geographic location, species, and grade composition of timber typically sold by DNR. Average annual log and stumpage prices both improved in 2010 from the low in 2009 and they continue up for 2011 taken as a whole, based on data through October.

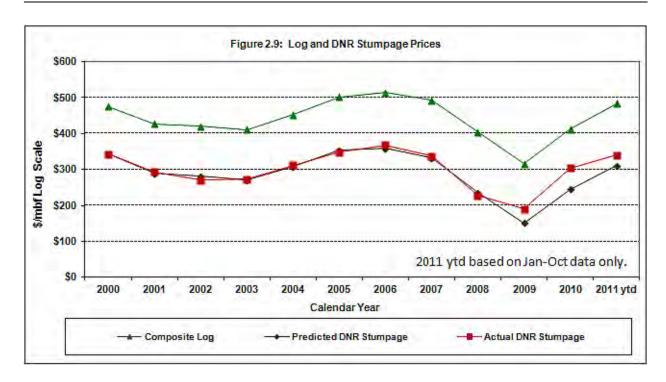
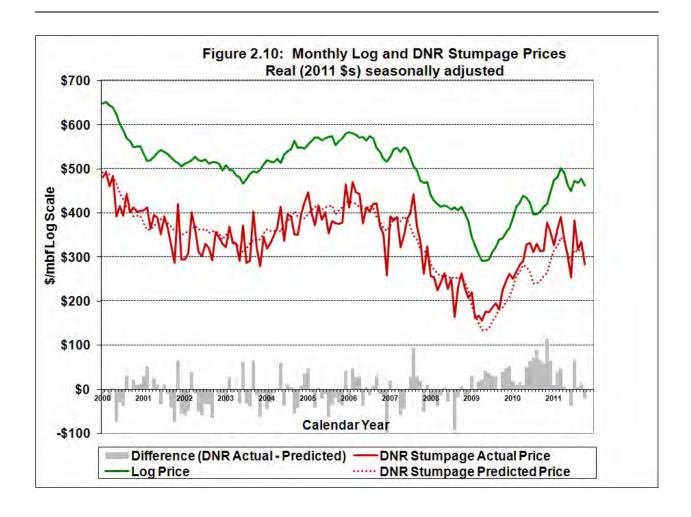


Figure 2.10 shows the same relationship but on a monthly basis with seasonal adjustment and in real 2011 dollars. The bars at the bottom of the graph show by how much actual DNR stumpage prices are above those expected given log prices. **Figure 2.10** shows the upturn in log and DNR stumpage prices since the extreme low point in April 2009.





Part 3. DNR's Revenue Forecast

This Revenue Forecast includes Department revenues from timber sales on trust lands, leases on trust uplands, and leases on aquatic lands. It also forecasts revenues to individual funds, including DNR management funds, beneficiary current funds, and beneficiary permanent funds. Some caveats about the uncertainty of forecasting Department revenues are summarized near the end of this section.

Timber revenues

The Washington State Department of Natural Resources (DNR) sells timber through contracts. The Department determines the total volume to be offered for sale each month and the minimum bid for each timber sale. The sale is awarded to the highest bidder and the average sales price (\$/mbf) is set at the time of auction. DNR collects a 10 percent initial deposit at the time of sale and holds it until the sale is completed. Revenues are collected at the time of harvest (removal). The initial deposit is credited as the last 10 percent of timber is harvested.

Contracts for DNR timber sales sold over the past two fiscal years (FYs 2010 and 2011) have varied in duration from three months to over five years, with an average (weighted by volume) of about 19.2 months. The purchaser determines the actual timing of harvest within the terms of the contract. As a result, timber revenues to beneficiaries and DNR management funds lag current market conditions. Currently, that lag is about 11 to 12 months.

Timber that is sold but not yet harvested is referred to as "volume under contract" or "inventory". Timber volume is added to the inventory when it is sold and placed under contract and it is removed from the inventory as the timber is harvested.

Timber Sales Volume. The Board of Natural Resources (Board) sets the level of sustainable harvest for Washington forests managed by DNR. In 2007, the Board adjusted the sustainable harvest level for the current sustainable harvest decade (FY 2005 through FY 2014) for western Washington forests to 550 mmbf per year. The Board has not addressed the sustainable harvest level for eastern Washington since 1988, when it approved a level of 87 mmbf per year.

For forecast purposes, the current Board-approved level of 550 mmbf for western Washington is combined with a timber sales level for eastern Washington estimated to average 75 mmbf per year over the current western Washington sustainable harvest decade, resulting in a projected

Figure 3.1: Forecast Timber Sales Volume Actual Projected Volume (mmbf, Scribner rule) Fiscal year ending June 30 Previous Forecast Current Forecast Change Percent Change 0% 0% 0% 0% ····· Projected Annual Level

annual statewide timber sales level of 625 mmbf per year (see **Figure 3.1**). After the first seven years of the sustainable harvest decade for western Washington, DNR timber sales averaged

under this target annual timber sales level of 625 mmbf. In order to make up the cumulative 162 mmbf shortfall through FY 2011, 54 mmbf must be added to the 625 mmbf target level for the final three fiscal years of the sustainable harvest decade. The result is a projected annual timber sales level of 679 mmbf for FYs 2012, 2013, and 2014 (see Figure 3.1). This level is unchanged from the September Forecast.

It will be challenging for DNR to make this target timber sales volume of 679 mmbf annually for FYs 2012-2014 given that sales have exceeded the annual target of 625 mmbf in only two of the first seven years of the sustainable harvest decade. In addition to the normal operational challenges to a public agency putting up timber sales, market conditions have hammered DNR's potential timber purchasers in the forest products industry. Pacific Northwest sawmills continue to go through closures and curtailments. This market weakness has been evidenced by the number of "no bids" on recent DNR timber sales. In April, May, and June (in last fiscal year, FY 2011) and in July (the first month of the current fiscal year, FY 2012), 35 percent of the volume offered, or 97 mmbf out of 274 mmbf, did not sell. The last three months, August through October have been better, with only 11 percent of volume offered, or 14 mmbf out of 125 mmbf, not selling. But in more normal economic times no-bid sales are rare.

In addition to the challenging market conditions, potential environmental and policy issues, especially regarding marbled murrelet habitat, will compound the difficulty of reaching the high 679 mmbf timber sales target for the next three consecutive years. And now state workers have had their salaries and work hours reduced by 3 percent for FYs 2012 and 2013 and this may reduce work output, including in the DNR timber sales program. Nevertheless, DNR expects to

make the 679 mmbf target for FY 2012 with planned timber sales volume in the pipeline and by bringing back to auction several of its recent no-bid sales.

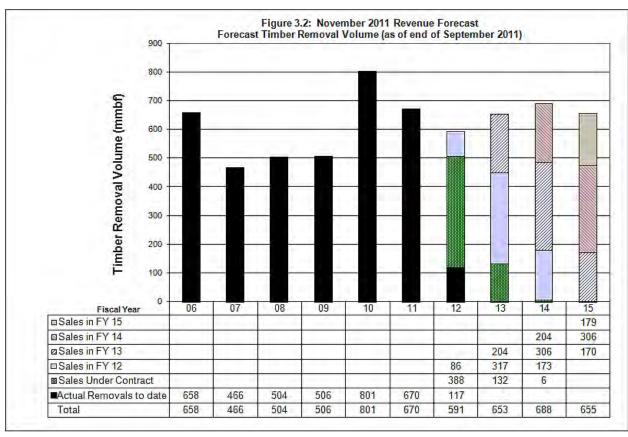
The last year of the forecast, FY 2015, is the first year of the next sustainable harvest decade (FY 2015 through FY 2024) for western Washington. The Department will recalculate the sustainable harvest and anticipates that the Board will adopt a new sustainable harvest level for western Washington before the next decade begins. Until next decade's sustainable harvest process is completed and the new level is formally established, the Forecast will use the Department's estimated western Washington sustainable harvest for the next decade of 537 mmbf plus eastern Washington timber sales of 60 mmbf for FY 2015 to arrive at a projected timber sales volume of 597 mmbf for FY 2015.

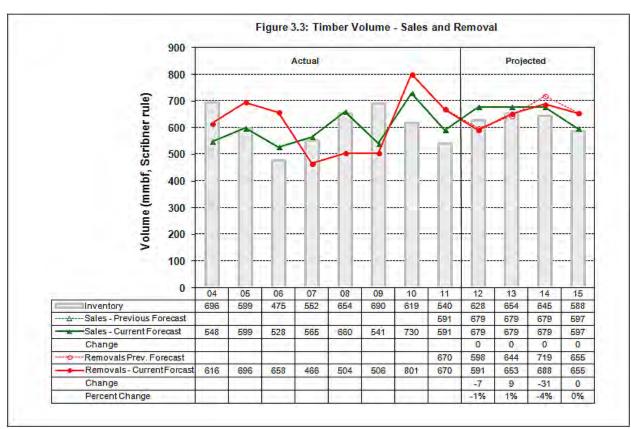
Timber Removal Volume. At the end of September, the Department had 526 mmbf of timber valued at \$164.4 million under contract. This is a decrease in the volume under contract from the 556 mmbf at the end of July (and referenced in the September Forecast), but it is a slight increase in the value from \$163.6 million. At the end of FY 2011, there was about 10.3 months worth of volume under contract. We expect the inventory to increase to about 12.1 months worth at the end of FY 2012 and to be about 11.7 months worth at the end of FY 2013 based on increased sales projected during those years.

For each Forecast, we survey DNR timber sale purchasers to determine their planned timing of removals from the timber volume they have under contract at the time of the survey. This Forecast's survey, conducted in the first half of October, indicates that purchasers plan to harvest 388 mmbf, 74 percent of the volume under contract, this fiscal year (FY 2012) and 132 mmbf (25 percent) and 6 mmbf (1 percent) of the existing inventory in FYs 2013 and 2014 respectively (see **Figure 3.2** for detail). Based on these results, the projected removal volumes for FYs 2012 and 2013 are virtually unchanged from the June Forecast, with about 1 percent of total annual removal volume moving from FY 2012 to FY 2013 (see **Figure 3.3**).

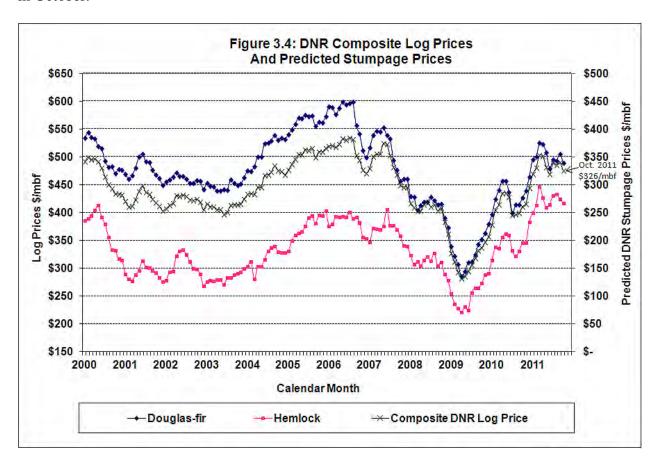
In year-to-date FY 2012 through September, timber sale purchasers removed 117 mmbf (see **Figure 3.2**). Together with the expected removals of 388 mmbf from volume under contract at the end of September plus 86 mmbf to come from future FY 2012 timber sales from October 2011 through June 2012, this brings the forecast of total timber removals for FY 2012 to 591 mmbf—a 1 percent decrease from the 598 mmbf projected in the June Forecast (see **Figures 3.2** and 3.3).

Projected timber removal volumes for the current biennium, 2011-2013, are virtually unchanged since the September Forecast (only 0.2 percent greater) because timber sales volume for FYs 2012 and 2013 are unchanged and because timber purchasers have not significantly changed the planned timing of their harvest of timber volume in the inventory. Forecast volumes for the 2013-2015 Biennium are reduced by 31 mmbf, or 2 percent (see **Figure 3.3**).



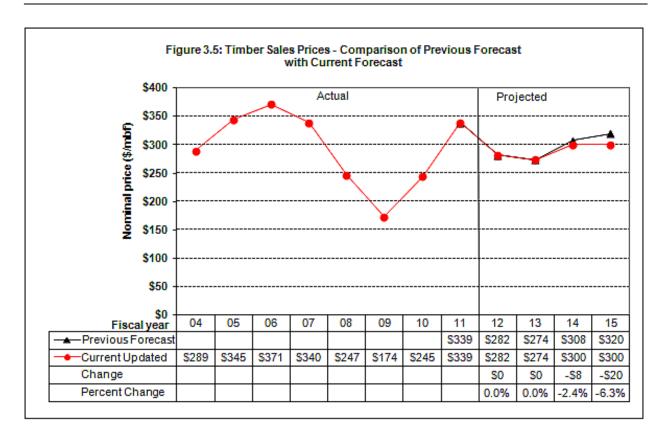


Timber Sales Prices. Composite log prices (weighted by species) are used to predict actual stumpage prices for DNR timber sales (using the formula composite log price minus \$150/mbf logging costs). The composite projected stumpage price had been increasing every month since July 2010, when it was \$245/mbf, to reach a recent high of \$353/mbf in March, the highest level since June 2007 (see **Figure 3.4**). It has fallen off somewhat since then and stands at \$326/mbf in October.



Actual results of monthly DNR timber sales (shown in **Figure 2.10** in seasonally adjusted terms and in real 2011 dollars) are more volatile. In FY 2011, monthly timber sale prices were mostly above \$300/mbf and averaged \$339/mbf for the fiscal year (see **Figure 3.5**). For the first four months of the new fiscal year, FY 2012, the average price weighted by volume is also \$339/mbf.

The higher stumpage prices for DNR timber sales in FY 2011 and early FY 2012 can be attributed to the greatly increased level of Pacific Northwest log exports to China (even though logs from DNR lands cannot be exported). A majority of logs harvested on private lands in the Coast region in this recent period were exported to East Asia at prices higher than the region's sawmills could bid. This helped drive up the price for DNR logs as they constituted the major remaining source of supply to the region's lumber mills. However, the relationship of higher log prices and lower lumber prices cannot hold over a long period, so if lumber prices do not pick up we expect DNR timber sale prices to drop and/or there to be a number of offered sales with no bids.

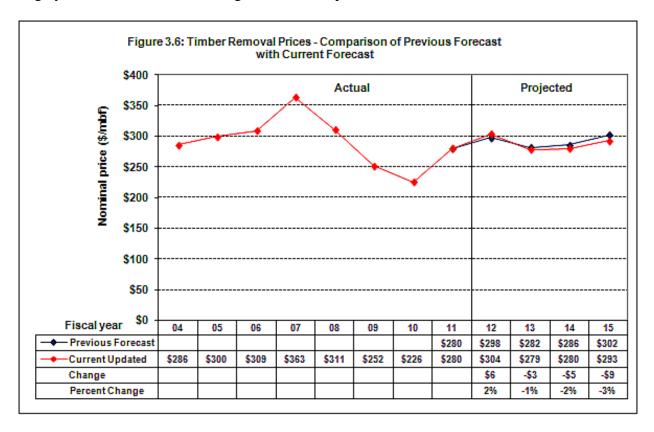


Even though DNR timber sales have averaged \$339/mbf for the first four months of FY 2012 compared with the \$282/mbf projected for the entire fiscal year in the September Forecast, we are keeping the forecast price at \$282/mbf for now. This is based on two factors: the developing slowdown in log exports to China and the \$283/mbf price received in October's timber sales. Because lumber prices remain relatively low and flat and the housing market remains stagnant and unpromising, the forecast timber sale prices for FY 2013 is unchanged at \$274/mbf and the price is lowered to \$300/mbf for both FYs 2014 and 2015, down from \$308 and \$320/mbf respectively (see **Figure 3.5**).

The forecast of DNR stumpage prices in the next two biennia incorporates continued pessimism about the long-term recovery of the U.S. housing market. This, however, is offset by expected continued strength in Asia's demand for both logs and lumber (despite the current temporary slowdown in China's log imports), which will favorably influence stumpage prices. When domestic demand for lumber starts to grow, this will add upward pressure to stumpage prices, but the timing for a recovery in housing construction remains uncertain. Again, economists have divergent opinions, with some predicting the housing recovery will occur in latter 2012 and others predicting things won't improve until 2015 or even after 2020. If it happens sooner, then our predicted DNR stumpage prices in the later years of the Forecast will prove to be too low.

Timber Removal Prices. Timber removal prices are a function of timber sales prices and the timing of the timber's removal. They can be thought of as a moving average of previous timber sales prices, weighted by the volume of sold timber removed in each time period. The removal volumes used to calculate the weights are shown in **Figure 3.2**, which results in a smoothing out and a lag of timber removal prices compared to timber sales prices. For example, sales prices

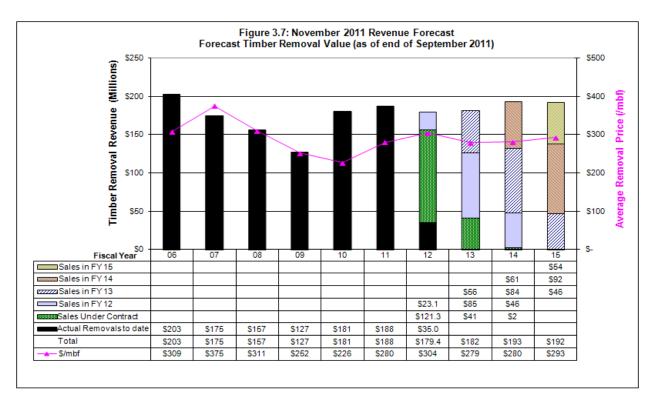
bottomed out at an average annual \$174/mbf in FY 2009 (see **Figure 3.5**). As shown in **Figure 3.6**, removal prices bottomed out in FY 2010 at \$226/mbf, which was \$52/mbf higher and a year later than the bottom for sales prices. Timber removal prices made a rebound in FY 2011 to an average annual price of \$280/mbf, thanks in part to the year-over-year increase in sales prices in FYs 2010 and 2011. Removal prices are forecast to go even higher to \$304/mbf in FY 2012, largely due to the \$339/mbf average annual sales price for FY 2011.

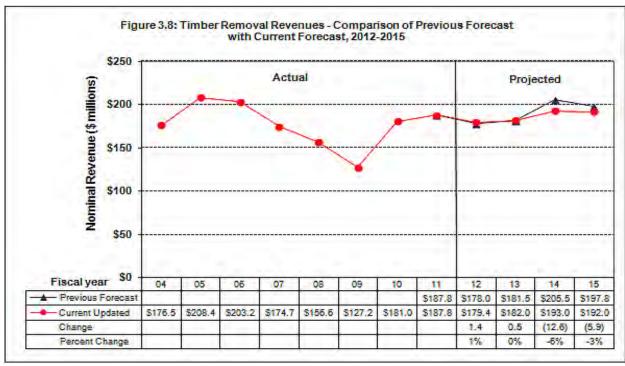


As shown in **Figure 3.6**, there are small revisions to the projected timber removal prices throughout the Forecast period, with the current FY 2012 price up from \$298 to \$304/mbf. The forecast timber removal prices for FYs 2013, 2014, and 2015 are lowered to \$279, \$280, and \$293/mbf respectively. The lower removal prices in FYs 2014 and 2015 reflect the lower timber sales prices in those years.

Timber Removal Revenues. Figure 3.7 shows projected annual timber removal revenues and the average removal price for that fiscal year, broken down by the fiscal year in which the timber was sold ("sales under contract" are already sold as of October 1, 2011). About 20 percent (or \$35.0 million) of the forecast timber harvest revenue this fiscal year (FY 2012) will come from sold timber already harvested to date, another 68 percent (\$121.3 million) will come from previously sold timber sales currently under contract as of the end of September, and the final 13 percent (\$23.1 million) will come from FY 2012 sales sold after October 1, 2011.

There is only a small change from the September Forecast to projected timber revenues (see **Figure 3.8**) for the current 2001-2003 Biennium because both projected timber removal volumes and timber removal prices are little changed (less than 2 percent each for each year). As a result,





current biennium timber removal revenues are up by 0.5 percent (\$1.9 million) to \$361.4 million. In the 2013-15 Biennium, forecast of timber removal revenues are down by \$18.4 million, or 5percent, to \$385.0 million as a result of lower removal volumes in FY 2014 and lower removal prices in both FYs 2014 and 2015.

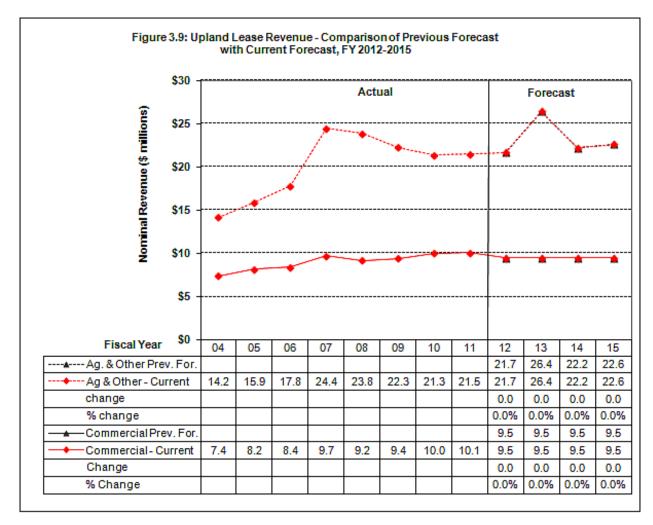
Upland lease revenues

Upland lease revenues are generated primarily from leases and the sale of valuable materials, other than timber, on state trust lands. In the Forecast, upland lease revenues are divided into two categories:

Commercial—Commercial real estate leases.

Agricultural and Other—Agricultural includes orchard and vineyard, dryland cropland, and grazing leases. "Other" includes special use, mineral and hydrocarbon, communication site, and special forest products leases, right-of-way easements, and sales of valuable materials other than timber (e.g., rock, sand, and gravel).

Commercial. Commercial real estate leases on state trust lands generate a steady source of revenue–\$10.1 million in FY 2011, a slight increase over FY 2010's \$10.0 million (see **Figure 3.9**). DNR has been fortunate to be able to maintain a \$10 million revenue level in the last two fiscal years even in the midst of a difficult economy. The economic downturn increased



the probability that some of DNR's commercial building lessees could vacate, in which case it would be difficult to re-lease at the current rental rates, if at all.

DNR will lose JanSport as a tenant at its Everett warehouse commercial property at the end of January 2012. The JanSport lease is for \$1.2 million per year so losing the lease would mean losing \$0.5 million in rental revenue for the last five months of FY 2012.

This Forecast leaves projected commercial lease income unchanged at \$9.5 million per year for FYs 2012-2015, as originally set in the June Forecast. It may be difficult to maintain this level of revenue over the next four years as recovery in commercial real estate will be slow and uncertain.

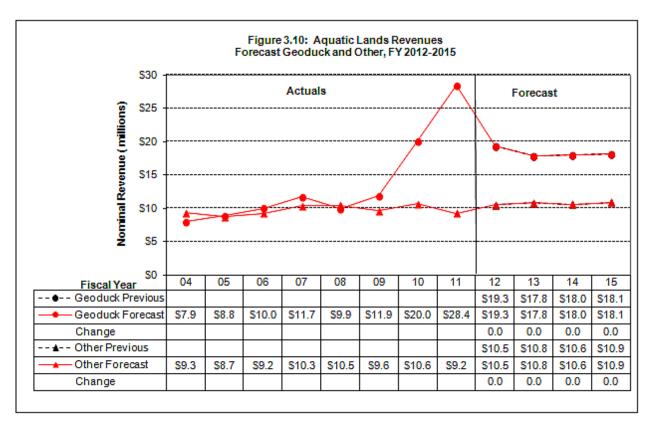
Agricultural and Other. Revenues from agricultural and other upland leases came in at \$21.5 million for FY 2011, almost the same as the FY 2010 revenue of \$21.3 million in these diverse uplands leasing programs (see **Figure 3.9**). Here is a more detailed breakdown of the source of these revenues over the last two fiscal years:

	FY 2010	FY 2011
Agricultural	\$11,589,000	\$13,112,000
Grazing	664,000	663,000
Special forest products	585,000	424,000
Special use	1,760,000	1,818,000
Communication site	3,988,000	3,962,000
Right-of-Way	726,000	433,000
Mineral, oil, and gas	682,000	282,000
Rock, sand, and gravel	647,000	595,000
Other	699,000	181,000
Total	\$21,340,000	\$21,469,000

For this forecast, revenue from the agricultural and other (non-commercial) leasing programs in FY 2012 is being left unchanged from the September Forecast at \$21.7 million (see **Figure 3.9**). The high blip in FY 2013 represents an estimated \$4.5 million return from the proposed sale of improvements (towers, buildings, and equipment) at certain communication sites in that fiscal year.

Aquatic lands revenues

Geoduck Revenues. There is no change from the previous Forecast on projected geoduck revenues (see **Figure 3.10**). In the September Forecast, the underlying geoduck unit price for forecast purposes was raised to \$8.17 per pound for FY 2012, with small increases for FYs 2013-2015. This was based on geoduck auction prices having stayed up around \$10 per pound in seven auctions since December 2009, in contrast to the extreme price volatility typical before that time. Since the August 2011 auction result at \$11.62 per pound was already known at the time of the previous Forecast, the effective forecast price for the entire 2012 fiscal year was set at \$8.95 per pound.



Geoduck revenues are projected to be \$37.1 million for the current 2011-2013 Biennium and \$36.1 million for the 2013-2015 Biennium. However, there are several downside risks:

- 1. The FY 2012 projection may prove to be high if the higher-than-normal geoduck auction volume accounted for in FY 2011 due to the mismatch between the geoduck harvest year and the state's fiscal year results in less-than-normal volume accounted for in FY 2012.
- 2. Harvests (and therefore revenues) could be deferred or lost due if geoduck beds are closed due an unpredictable occurrence of the paralytic shellfish poisoning (PSP) toxin.

- 3. A slowdown in China's economic growth could lower demand for this luxury consumption item in its predominant end market.
- 4. Other large-scale social-political-economic events in China such as the SARS (Severe Acute Respiratory Syndrome) outbreak in 2002-2003 could disrupt the economy and foreign trade and commerce.

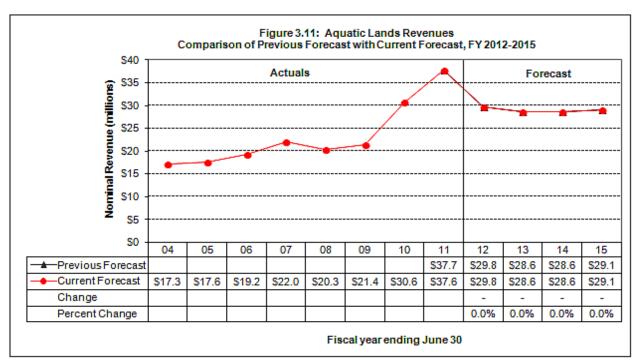
Lease and Other Revenues. DNR manages 2.6 million acres of state-owned aquatic lands for the benefit of the people of Washington. Where appropriate, these aquatic lands may be managed to generate revenue to the state. Besides auctions selling the rights to harvest geoducks, there are several other categories of revenues generated on the state's aquatic lands:

- 1. Water dependent leases (e.g., marinas and buoys);
- 2. Non-water dependent leases (e.g., structures related to upland uses);
- 3. Aquaculture leases (e.g., oyster and salmon "farming");
- 4. Easements (e.g., powerline rights of way); and
- 5. Other (e.g., sand and gravel sales and trespass settlements).

There is no change from the previous Forecast in these other (non-geoduck) aquatic lands revenue categories (see Figure 3.10). There is one quarter's worth of revenue data in for FY 2012 to date and there are no surprises in any of these categories. We expect that revenue in some of these categories will continue to be down because of the persistently weak economic conditions and this is already built in to the Forecast.

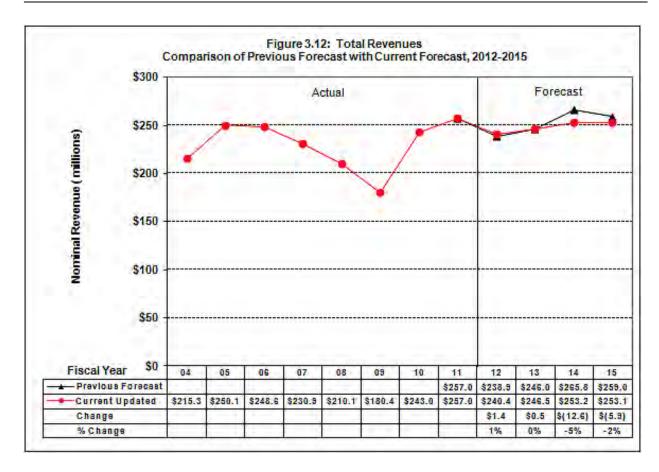
The projected revenue in these other aquatic lands categories is projected to be \$21.3 million in the current 2011-2013 Biennium and they are projected to be \$21.5 million in 2013-2015 Biennium.

Figure 3.11 shows annual actual and forecasts for all aquatic revenues (geoduck and other) combined. Total forecast revenues for aquatic lands programs are unchanged at \$58.4 million for the 2011-2013 Biennium and at \$57.7 million for the 2013-2015 Biennium.



Total revenues from all sources

Forecast revenues for the current 2011-2013 Biennium (FYs 2012 and 2013) are up from the September Forecast by \$1.9 million, or less than 0.5 percent, to \$486.9 million (see **Figure 3.12**). All the change is due to the projected change in timber revenues (see **Figure 3.8**) as projected upland lease revenues and aquatic land revenues are unchanged.



Forecast revenues for the 2013-15 Biennium (FYs 2014 and 2015) are down from the previous Forecast by \$18.5 million (3.5 percent) to \$506.3 million (see **Figure 3.12**). Again, all the change is due to the projected change in timber revenues.

Some caveats

DNR strives to produce the most accurate and objective forecast possible, based on the Department's current policy directions and available information. Actual revenues will depend on future policy decisions made by the Legislature and the Department, as well as market and other conditions beyond DNR's control. Listed below are issues that could potentially have a significant impact on future revenues from DNR-managed lands:

U.S. and Global Economic Crisis. There have been a few more positive economic reports recently but they are overwhelmed by the greater number of negative reports. "Uncertain", "weak", "fragile", and "vulnerable" are the adjectives economists currently use most often when asked how they assess the overall condition of the U.S. economy. And they are even more pessimistic than earlier in the year. Congress is distracted and paralyzed, the European financial crisis grinds on, the stock market is wildly volatile, consumer confidence is low, businesses are cautious and hesitant to hire, and unemployment remains stuck around nine percent.

U.S. Housing Market. At the risk of sounding like a broken record, the housing market remains discouraging. A good sign is that inventories of existing homes are beginning to fall, but they still remain high. Home prices are down from a year ago in 18 of the 20 largest U.S. metropolitan areas. New single family housing starts continue to bounce along the bottom and foreclosed residential properties will flood the market for years to come. Multifamily housing units starts are also still in a historic low range, but appear to be rising slowly out of the 2009-2010 trough. One of the early signs of a recovery in housing will be an increase in multifamily starts, so the trend in multifamily starts bears watching.

Timber Sales Volume. It will be challenging for DNR to make the target timber sales volume of 679 mmbf annually for FYs 2012-2014 given that sales have exceeded the annual target of 625 mmbf in only two of the first seven years of the current sustainable harvest decade. In addition to the normal operational challenges facing DNR timber sales, market conditions have hammered potential timber purchasers. Potential environmental and policy issues, especially regarding marbled murrelet habitat, will compound the difficulty of reaching the timber sales target for the next three consecutive years. The 3 percent work-hour reduction for state workers is another factor working against achieving the higher projected sales volume.

As events and market conditions develop, DNR will incorporate new information into future Forecasts. At this point, we judge the downside to the overall forecast to be greater than the upside because of the risks to the timber sales volume and therefore to timber removal volume and revenues.

Distribution of revenues

The distribution of timber revenues by trust are based on:

- The value of timber in the inventory (sales sold but not yet harvested);
- The volumes of timber in planned sales for FYs 2012 and 2013; and
- The distribution of the sustainable harvest for FYs 2014 and 2015.

Timber sales are expected to be harvested on average between 11.3 and 12.1 months after they are sold. Distributions of lease revenues are assumed to be proportional to historic distributions unless otherwise specified.

Since a single timber sale can be worth over \$3 million, dropping, adding, or delaying even one sale can represent a significant shift in revenues to a specific trust fund.

Management Fee Deduction. The underlying statutory management fee deductions to DNR as authorized by the legislature are up to 25 percent, as determined by the Board of Natural Resources (Board), for both the Resource Management Cost Account (RMCA) and the Forest Development Account (FDA). In budget bills, the legislature has authorized a deduction of up to 30 percent to RMCA since July 1, 2005. In the budget bill for the current 2011-2013 Biennium (Sec. 966, 2ESHB 1087), the legislature authorized the RMCA deduction at up to 30 percent for FY 2012 (the current fiscal year) only. At its April 2011 meeting, the Board adopted a resolution to reduce the RMCA deduction from 30 to 27 percent and the FDA deduction from 25 to 23 percent. At its July 2011 meeting, the Board acted to continue the deductions at 27 percent for RMCA (so long as this rate is authorized by the legislature) and at 23 percent for FDA. At its October 2011 meeting, the Board approved a resolution to reduce the FDA deduction from 23 to 21 percent.

Given this background of official actions by the legislature and the Board, the management fee deductions assumed in this Forecast are:

	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>
FDA	23/21*	21	21	21
RMCA	27	25	25	25

*23% through 10-10-11, changing to 21% effective 10-11-11

At its September 2011 meeting, the Board authorized the Department to seek legislative approval to maintain the RMCA deduction at 30 percent in FY 2013. We anticipate this will be approved in the next legislative session and be effective on July 1, 2012. Changes to the RMCA and FDA management fee deductions will be incorporated into future Forecasts upon future official actions by the legislature and the Board.

November 2011 Economic and Revenue Forecast – Washington State Dep 47 of 45	partment of Natural Resources

Revenue forecast tables

Tables 3.1 and 3.2 on the following pages provide Forecast details. **Table 3.1** focuses on the source of revenues and **Table 3.2** focuses on the distribution of revenues. Both tables include historical and projected figures.

		Table	3.1 November	20	I i Forecast	by Source (n	ıllı	ons or dolla	ırs)				
hanges are from September 2011	Forecast												
imber Sales		FY 08	FY 09	Т	FY 10	FY 11		FY 12		FY 13	F	Y 14	FY 15
olume (mmbf)		660	541		730	591		679		679		679	59
Change		-	-		-	-		-		-		-	-
% Change		0%			0%	0%		0%		0%		0%	(
rice (\$/mbf)		\$247	\$174		\$245	\$339		\$282		\$274		\$300	\$3
Change		\$0			\$0	\$0		\$0		\$0		-\$8	-\$
% Change		0%	0%		0%	0%		0%		0%		-2%	-(
		400.0			470 5	200.4		404.2		405.0		202.0	470
Alue of Timber Sales	\$ \$	163.0	\$ 94.0 \$ -	\$	178.5		\$	191.3	\$	185.9	\$	203.8	179 (11
Change % Change	- J	- 0%		3	0%	0%	ā	- 0%	ā	- 0%	ð	(5.1) -2%	(11
70 Change		0%	. 070	_	076	0%		U%		0%		-∠7o	-0
imber Removals		FY 08	FY 09		FY 10	FY 11		FY 12		FY 13	F	Y 14	FY 15
/olume (mmbf)		504	506		801	670		591		653		688	65
Change		-	-		-	-		(7)		9		(31)	
% Change		0%	0%		0%	0%		-1%		1%		-4%	(
rice (\$/mbf)		\$311	\$252		\$226	\$280		\$304		\$279		\$280	\$2
Change		\$0	\$0		\$0	\$0		\$6		-\$3		-\$5	-
% Change		0%	0%		0%	0%		2%		-1%		-2%	-3
		450.0	t 427.2	\$	404.0	407.0		470.4		402.0		193.0	400
imber Revenue	\$ \$	156.6	\$ 127.2 \$ -	S	181.0		\$	179.4 1.4		182.0 0.5	\$	(12.6)	192 (5
Change % Change	ð	- 0%		_	- 3	0%	ð	1.4	ð	0.5	ā	(12.6) -6%	(5
76 Change		0 70	. 070	_	0 76	0 70		1 70		0 70		-0 /0	
ease Revenue		FY 08	FY 09	т	FY 10	FY 11		FY 12		FY 13	F	Y 14	FY 15
gricultural and Mineral	\$	23.8	\$ 22.3	\$	21.3 \$	5 21.5	\$	21.7	\$	26.4	\$	22.2	\$ 22
Change	\$	-	\$ -	\$	- 9	-	\$	-	\$	-	\$	-	\$ -
% Change		0%			0%	0%		0%		0%		0%	
commercial	\$	9.2		\$	10.0 \$		\$	9.5	\$	9.5	\$	9.5	9
Change	\$	-	\$ -	\$	- \$		\$	-	\$	-	\$	-	\$ -
% Change		0%	0%		0%	0%		0%		0%		0%	
quatic Lands	\$	20.4		\$	30.8		\$		\$	28.6	\$	28.6	29
Change	\$	-	\$ -	\$	- 9		\$	-	\$	-	\$	-	\$ -
% Change		0%		L	0%	0%		0%		0%		0%	(
otal Lease Revenue	\$	53.4			62.1		\$	60.9		64.5		60.2	61
Change	\$	- 0%	\$ - 0%	\$	- \$	6 - 0%	\$	- 00/	\$	- 00/	\$	-	\$ -
% Change		0%	. 0%	_	0%	0%		0%		0%		0%	C
otal All Sources	\$	210.0	\$ 179.8	\$	243.1	257.0	\$	240.4	\$	246.5	\$	253.2	\$ 253
Change	\$	-	\$ -	\$	- 9		\$	1.4		0.5		(12.6)	(5
% Change		0%			0%	0%		1%		0%		-5%	-2
lote Trust land transfer is not inclu	ided in dis												
This table excludes interest a	nd Land F	lank transact	ions, fire assessm	ents	s, permits, and fe	ees.							

			lable	3.2: No	en	nber 2011 F	or	ecast by	Fu	ind (in mi	llio	ns of dol	llar	rs)						
Char	nges are from September 2011 Forecast																			
Man	agement Funds		FY 06	FY 07		FY 08		FY 09	Г	FY 10		FY 11		FY 12		FY 13	Г	FY 14	_	FY 15
041	RMCA - Uplands	\$	38.2	\$ 3	5.2	\$ 32.0	\$	26.5	S	31.8	\$	33.9	\$	31.3	S	31.3	\$	32.2	\$	31.
	Change	\$		\$		S -	\$		\$		\$		\$	(0.2)						(0.
	% Change		0%		0%	0%		0%		0%		0%		-1%		-1%		-5%		-2
041	RMCA - Aquatic Lands	\$	8.3	\$	9.9	\$ 8.6	\$	8.9	\$	13.9	\$	17.5	\$	13.3	\$	12.6	\$	12.7	\$	12
	Change	\$		\$		S -	\$		\$		\$		\$		\$	-	\$	-	\$	
	% Change		0%		0%	0%		0%	Ť	0%		0%		0%		0%	Ť	0%		0
014	FDA	\$	22.7	\$ 2	8.0	\$ 18.6	\$	17.3	\$	25.9	\$	25.8	\$	21.0	\$	21.2	\$	21.7	\$	22
	Change	S	-	\$		S -	S		S		\$	-	\$	(0.6)	S	(1.3)	S	(3.0)		(2
	% Change		0%		0%	0%		0%	Ė	0%		0%	Ė	-3%		-6%	Ė	-12%		
Tota	I Management Funds	\$	69.2		.9		_	52.7	\$	71.6	\$		\$	65.6	_		\$		\$	66.
. 010	Change	\$	- 0512			\$ -	\$		\$		\$		\$	(0.8)						(3
	% Change	Ť	0%		0%	0%		0%	ľ	0%	•	0%	,	-1%		-2%	ľ	-7%	_	-4
	70 Onlings		070		0,0	0,0	H	0,0	۰	070		0,0	_	170	H	270	۰	7.70	_	
urr	ent Funds		FY 06	FY 07		FY 08		FY 09	г	FY 10	_	FY 11	Т	FY 12		FY 13	г	FY 14	_	FY 15
113		\$	64.3		5.5	\$ 56.6	S	41.5	\$	47.9	\$	56.5	\$	57.5	\$		S			66
10	Change	\$	04.0	\$		\$ -	\$		\$	41.0	\$	- 50.5	\$	(0.4)	ç	(0.6)				(1
	% Change	•	0%		0%	0%		0%	•	0%	•	0%	•	-1%	Ů	-1%	ľ	-5%	•	-2
aga	Forest Board Counties	\$	72.6		3.6	\$ 52.5	2		\$	67.9	\$	70.5	\$	65.8	2		S		ç	67
,,,,	Change	S	12.0	\$		\$ -	\$		\$	- 01.5	\$	10.5	\$	2.5						(0
	% Change	9	0%		0%	0%	ų.	0%	•	0%	ų.	0%	9	4%		4%	Ψ	-3%	Ų	()
001		\$	2.9		2.9	\$ 3.0	2	1.4	\$	5.0	\$	4.2	\$	3.4			S		\$	3
JU 1	Change	S	2.3	S		\$ -	\$	1.4	\$	5.0	S	4.2	\$	(0.1)						(0
	% Change	9	0%	-	0%	0%	9	0%	•	0%	¥	0%	9	-3%		-1%	۳	-6%	ų.	-3
2/12	University Bond Retirement	\$	2.3).9	\$ 2.3	2	3.4	\$	1.8	S		\$	1.0			S		C	2
J40	Change	S	2.3	S		\$ -	\$	3.4	\$	1.0	\$	1.0	\$	(0.2)			-			(0
	% Change	9	0%		0%	0%	9	0%	9	0%	ų.	0%	9	-15%	ų,	-3%	Ψ	-5%	ų.	-3
347		\$	1.1		1.1	\$ 1.2	2	1.6	\$	1.2	Œ	1.4	\$	1.1	Œ		œ.		Q.	1
341	Change	S	1.1	\$		\$ 1.2	S	1.0	S	1.2	\$	1.4	S	1.1	S		\$		\$	
	% Change	ā	0%	-	0%	0%	ā	0%	ā	0%	ā	0%	Ģ	0%	ų,	0%	ā	0%	ā	- (
)42		\$	3.8		076 3.7	\$ 3.8	Œ	3.8	S	5.6	\$	4.9	\$	6.4	\$		\$		\$	5
142	Change	\$	3.0	S		\$ 5.0	\$	3.0	S	5.0	S	4.3	S	(0.3)						(0
	% Change	ā	0%	-	0%	0%	ā	0%	ā	0%	ā	0%	ā	-5%	ų,	0.0)	ā	-7%	ā	() -:
126	Capitol Building Construction	\$	7.0		5.0	\$ 5.2	· C	5.7	S	8.7	\$	8.7	\$	8.6	C.		S		\$	7
000	Change		7.0	S		\$ 5.2	S	5.1	S	0.7	S	0.1	S	0.6	S		\$			(0
		\$	0%		0%	0%)	0%	Þ	0%	à	0%	Þ	7%		2%	Þ	-7%	à	(0
1041	% Change 3 Normal (CWU, EWU, WWU, TESC) So	6					-		6		•		6	0.1			-		· C	
J61/		\$	0.1).1	\$ 0.1 \$ -	\$	0.1	\$	0.1	\$ \$	0.1	\$		\$		\$			0
	Change	\$	- 00/	-		*	2	- 00/	\$	- 00/	à	- 00/	Þ	- 00/	i T		Þ		\$	-
N.L.	% Change	6	0%		0%	0%	0	0%	-6	0%	e.	0%	6	0%		0%	6	0%	· C	0
Jthe	er Funds	\$	0.0	-).5	\$ 0.2		0.4	\$	0.1	\$	0.1	\$	0.0			\$		-	
	Change	\$	-	\$		\$ -	\$	-	\$	-	\$	-	\$	0.0			\$		\$	(0
	% Change		0%		0%	0%	_	0%	L	0%		0%		0%	_	0%	Ļ	-2%		-4
ota	l Current Funds	\$	154.2			\$ 125.0		106.5	\$	138.3		147.6		143.9						154
	Change	\$	-).0)	\$ -	\$		\$	-	\$	-	\$	2.1	\$		\$		\$	(2
	% Change	1	0%		0%	0%	i	0%		0%		0%	ı	2%	i	1%	ı	-4%		-2

		Table	e 3.2 (C	ontinued	: N	ovember 2	2011 Forec	ast	by Fund	(In	millions	of	dollars)						
Cha	nges are from September 2011 Forecas	t																	
۱qu	atic Lands Enhancement Account	F	FY 06	FY 07	Т	FY 08	FY 09	Г	FY 10		FY 11		FY 12		FY 13		FY 14		FY 15
2R		\$	11.1	\$ 12	7 5	\$ 11.7	\$ 12.0	\$	16.8	\$	20.2	\$	16.5	\$	15.9	\$	15.9	\$	16.
	Change	\$	-	\$ -		\$ -	\$ -	\$	-	S	-	\$	-	\$	-	\$	-	\$	-
	% Change		0%	C	%	0%	0%		0%		0%		0%		0%		0%		0
	3				_			Т				_							
err	manent Funds		FY 06	FY 07	Т	FY 08	FY 09	Г	FY 10		FY 11	П	FY 12		FY 13		FY 14		FY 15
01	Agricultural College Permanent	\$	4.7		2 \$	\$ 4.3		\$	6.1	\$	2.9	\$	3.9	\$	3.4	\$	3.3	\$	3.
	Change	\$	-	\$ -	9	\$ -	\$ -	\$	-	\$	-	\$	0.4	\$	0.2	\$	(0.2)	\$	(0.
	% Change		0%	C	%	0%			0%		0%		10%		6%		-7%		-3
04	Normal School Permanent	\$	3.3	\$ 1	8 \$	\$ 3.1	\$ 2.5	\$	4.0	\$	3.0	\$	2.4		2.5	\$	3.0	\$	2.
	Change	\$	-	\$ -		\$ -	\$ -	\$	-	\$	-	\$	0.2		(0.0)	\$	(0.2)	\$	(0.
	% Change		0%		%	0%	0%	L	0%	_	0%		11%		0%		-5%		-3
05	Common School Permanent	\$	0.3					\$	0.4		0.2	\$	0.4		0.5	\$	0.4	-	0.
	Change	\$	-	\$ -		\$ -	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
	% Change		0%		%	0%			0%		0%		0%		0%		0%		0
606	Scientific Permanent	\$	5.6				\$ 2.8	\$	5.1	-	5.7	\$	7.0		8.4	\$	9.3		8.
	Change	\$		\$ -		\$ -	\$ -	\$		\$		\$	(0.4)		(0.1)	\$	(0.6)	\$	(0.
	% Change		0%		%	0%			0%	_	0%	_	-5%		-2%	_	-6%	_	-3
607		\$	0.5					\$	0.7		0.3	\$	0.6		0.5	\$	0.3	-	0.
	Change % Change	\$	- 0%	\$ -	%	\$ - 0%	\$ - 0%	\$	- 0%	\$	- 0%	\$	(0.1) -13%		(0.0) -4%	\$	(0.1) -13%	\$	(0. -3
												\$		_					
ota	l Permanent Funds	\$ \$	14.3	\$ 14 \$ -	6 \$	\$ 14.1 \$	\$ 8.6 \$	\$	16.3	S	12.1	\$	14.4 0.1		15.4 0.0	\$	16.3		15.
	Change	2	0%		%	0%			0%	3	0%	3	1%		0.0	Þ	(1.0) -6%	\$	(0.
	% Change	_	076	·	70	U 76	U 70	_	076		U 76	Н	170		070	_	-070		-3
oto	al All Funds	-	FY 06	FY 07	+	FY 08	FY 09	-	FY 10	_	FY 11	_	FY 12	_	FY 13	_	FY 14	_	FY 15
ota		\$	248.8		6 5			•	243.1	e e	257.0	•	240.4	¢	246.5	¢	253.2		253.
ota	Change	S	240.0		0) 9		\$ 179.8	\$	243.1	S	237.0	S	1.4		0.5		(12.6)		(5
	% Change	ų,	0%		ս) մ %	0%	-		0%		0%	9	1.4	_	0.5	Ģ	-5%	φ	-2
loto	: Trust land transfer is not included in di	otribut:			/0	U76	076	_	U 76		U 76	Н	170		U70	-	-370		-2
юсе	This table excludes interest and Land				cm.	onte normita	and foor												
	Totals may not add due to rounding.	Dank t	rarisactio	no, ille asse	South	ents, permits	, ailu iees.												
	Draft report - subject to change withou																		